Midline venous catheters offer patients extended duration of infusion therapy | 1

Intravenous literature: “Midlines are suitable for acute units and even for care home settings. Midlines have been associated with lower rates of phlebitis than short peripheral IVs, and less infections in contrast to central lines. There are different implantation techniques, which have evolved in terms of materials (silicone and polyurethane) and technological advances (ultrasound).” Carrero Caballero et al (2014).

Reference:

Abstract:
Current clinical practice is characterised for importance of the patient’s quality of life and the need to reduce the costs of their treatment. We search intravenous therapy alternatives that meet the needs of the patient, reducing the complications associated with the use of venous catheters. Scientific evidence shows that there are midline venous catheters that offer patients and professionals the possibility of extending the duration of infusion therapy, using more venous compatibility materials, and with less risk of infection. The Midlines are becoming in a safe an efficient device for intravenous therapy, continuous and intermittent infusion, provided the necessary care by expert nurses. Midline catheters are peripheral venous access devices between 3 to 10 inches in length (8 to 25 cm). Midlines are usually placed in an upper arm vein, such as the brachial or cephalic, and the distal extreme ends below the level of the axillary line. Midlines catheters implanted in the cephalic or deep basilica veins get more blood flow. This large blood volume justifies the lower risk of mechanical or chemical phlebitis. Midlines are routinely used for two to six weeks. Due that the extrem of these catheters does not extend beyond the axillary line, there are limitations for its use: type of infused drugs, velocity of infusion, etc. In general, solutions that have pH 5 to 9, or an osmolarity less than 500 mOsm are appropriate for infusion through a Midline. Its use is recommended in case of treatments over 7 days with low irritant capacity fluids. According to the Infusion Nurses Society’s standards of practice, Midline catheters are appropriate for all intravenous fluids that would normally be administered through a short peripheral IV Importantly, due that the catheter does not pass through the central veins, Midlines can be placed without a chest X-ray to confirm placement. For certain situations,
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Midlines are suitable for acute units and even for care home settings. Midlines have been associated with lower rates of phlebitis than short peripheral IVs, and less infections in contrast to central lines. There are different implantation techniques, which have evolved in terms of materials (silicone and polyurethane) and technological advances (ultrasound): Seldinger technique with micropuncture and Ultrasound-guided Seldinger technique. At present where scientific evidence, clinical needs, efficiency and costs are influential parameters, Midlines should be considered as an alternative peripheral venous access. Unlike PICC lines, Midline catheters offer peripheral, not central venous access. Midlines should be considered early in treatment instead of serial short peripheral IVs. These devices permit the infusion of most or all infusates that are appropriate for short peripheral IVs with the added advantage that Midlines can last much longer; at least six weeks and perhaps for months.

Other intravenous and vascular access resources that may be of interest (External links – IVTEAM has no responsibility for content).